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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,420	03/01/2004	Richard Paul Brandwein JR.	044499-0198	4964

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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LEE, SIU M

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/788,420	<b>Applicant(s)</b> BRANDWEIN, RICHARD PAUL	
	<b>Examiner</b> Siu M. Lee	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 12-16 and 18-23 is/are rejected.
- 7) ☒ Claim(s) 5-9, 11 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/1/2004</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-4, 10, 12-16, 18-23 are rejected under 35 U.S.C. 102(a) as being anticipated by the prior art of the instant application discloses in figure 1 and paragraph 0004-0005.

(1) Regarding claim 1:

The prior art of the instant application discloses a method of deriving a reference voltage for a data slicer comprising:

supplying a signal to a filter and filtering the signal (signal from the ASK/FSK switch 16 is supply to the low pass filter 14 and filtered by low pass filter 14, paragraph 0005, lines 1-3);

supplying the filtered signal to a comparator which comprises the data slicer (the filtered signal from the low pass filter 14 is supply to the comparator 18, paragraph 0005, lines 3-5);

passing the signal prior filtering through an RC circuit (the signal prior to the low pass filter 14 is pass to the RC circuit comprising R and C through a capacitor in figure 1); and

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using the output of the RC circuit as the reference voltage for the comparator (the threshold voltage from the RC circuit is applied to the comparator 18 which function as a data slicer, paragraph 0005, lines 8-9).

(2) Regarding claim 2:

The prior art of the instant application discloses that the filter is a low pass filter (low pass filter 14 in figure 1, paragraph 0005, lines 1-3).

(3) Regarding claim 3:

The prior art of the instant application discloses wherein the data slicer forms part of a cascaded RF receiver system (paragraph 0002, lines 1-3 and paragraph 0003, lines 1-3).

(4) Regarding claim 4:

The prior art of the instant application discloses wherein the signal is an IF (Intermediate Frequency) signal (since the current invention is an improvement to the prior art base on the same PLL IC, therefore the signal in the prior art is an IF (Intermediate Frequency) as in the current invention, paragraph 0020, lines 1-5).

(5) Regarding claim 10:

The prior art of the instant application discloses a method comprising:

supplying the modulated IF signal to a first filter circuit and a second filter circuit (the signal from the ASK/FSK switch 16 is supply to the low pass filter 14 and the RC filter circuit in external stage 12 as shown in figure 1);

supplying a first filtered signal from the first filter to a comparator as a data signal (the output of the low pass filter 14 is supply to the comparator 18 as a data input, paragraph 0005, lines 3-5); and

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supplying a second filtered signal from the second filter to the comparator as a reference voltage for the comparator (the threshold voltage from the RC circuit is applied to the comparator 18 which function as a slicer, paragraph 0005, lines 8-9).

(6) Regarding claim 12:

The prior art of the instant application discloses wherein the second filter is a low pass filter (the RC circuit in the external stage of 12 of figure 1 form a low pass filter circuit).

(7) Regarding claim 13:

The prior art of the instant application discloses wherein the second filter is an RC circuit (the RC circuit in the external stage of 12 of figure 1 form a low pass filter circuit).

(8) Regarding claim 14:

The prior art of the instant application discloses a circuit comprising:  
a source of an IF frequency signal for demodulation (the IF frequency signal from the ASK/FSK switch 16 in figure 1);  
a filter and a comparator serially connected with the source (the low pass filter 14 and the comparator 18 is serially connected with the source as shown in figure 1, paragraph 0005, lines 1-5); and  
a reference voltage circuit (the RC circuit in the external stage 12 of figure 1) connected to the comparator and configured to produce a comparator reference voltage (threshold voltage of the RC circuit), the reference voltage circuit comprising a resistor and a capacitor (R and C in the external stage of

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figure 1), the resistor being connected to a point between the source and the filter (the resistor R is connected to the point between the ASK/FSK switch 16 and low pass filter 14 through a capacitor as shown in figure 1) so as to be responsive a signal which is being supplied to the filter (the signal supply to the low pass filter 14 is pass through a capacitor and connect to the resistor R).

(9) Regarding claim 15:

The prior art of the instant application discloses wherein the source of the IF frequency signal comprises an ASK/FSK switch (ASK/FSK switch 16 as discloses in figure 1, paragraph 0005, lines 1-3).

(10) Regarding claim 16:

The prior art of the instant application discloses wherein the source of an IF frequency signal, filter and comparator serially connected with the source, comprise elements of an internal stage of a chip (as discloses in figure 1, the ASK/FSK switch 16, the low pass filter 14 and the comparator 18 are connected in series and all of them are within the internal stage 11, the internal stage 11 represents sealed within the chips, paragraph 0004, lines 3-5 and paragraph 005, lines 1-5)..

(11) Regarding claim 18:

The prior art of the instant application discloses wherein the capacitor of the reference voltage circuit comprises part of an external stage of the chip (as shown in figure 1, the capacitor C of the reference voltage circuit comprises part of an external stage 12 of the chip, paragraph 0004, lines 7-9).

(12) Regarding claim 19:

The prior art of the instant application discloses wherein the resistance and the capacitor of the reference voltage circuit comprise parts of the external stage of the chip (as shown in figure 1, the resistor R and the capacitor C are in the external stage 12, paragraph 0004, lines 7-9).

(13) Regarding claim 20:

The prior art of the instant application discloses a circuit comprising:

a source of an IF frequency signal for demodulation (the IF frequency signal from the ASK/FSK switch 16 in figure 1);

a filter and a comparator serially connected with the source (the low pass filter 14 and the comparator 18 is serially connected with the source as shown in figure 1, paragraph 0005, lines 1-5); and

a reference voltage circuit (the RC circuit in the external stage 12 of figure 1) connected to the comparator (the RC circuit in the external stage 12 is connected to the comparator 18) and configured to respond to a signal having a component which is comparable with a component filtered by the filter (the RC reference voltage circuit receives a signal before filtering through a capacitor and a signal after filtering as shown in figure 1).

(13) Regarding claim 21:

The prior art of the instant application discloses wherein the circuit forms part of a wireless communication device (as it states in paragraph 0002, the present invention relates generally to a receiver circuit for use in devices such as keyless entry receiver circuit, it indicates that the prior art discloses in figure 1 is

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also generally related to the same kind of application, which is a wireless communication device).

(14) Regarding claim 22:

The prior art of the instant application discloses wherein the wireless communication device comprises a keyless entry system for an automotive vehicle (for the same reason as states in claim 21 above, it is obvious to one of ordinary skill in the art at the time of invention to apply the keyless entry receiver circuit for an automotive vehicle).

(15) Regarding claim 23:

The prior art of the instant application discloses wherein the wireless communication device comprises a tire pressure monitoring system for an automotive vehicle (for the same reason as states in claim 21 above, it is obvious to one of ordinary skill in the art at the time of invention to apply the keyless entry receiver circuit for a tire pressure monitor system for an automotive vehicle).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Oshima et al. (US 2001/0021144 A1).

(1) Regarding claim 1:



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Oshima et al. discloses a method of deriving a reference voltage for a data slicer comprising:

supplying a signal to a filter and filtering the signal (signal coming through resistor 510 and pass to the first low pass filter 943a in figure 30);

supplying the filtered signal to a comparator which comprises the data slicer (the signal from low pass filter 943a is pass to the comparator 587c which is located in the second level slicer portion 587 as shown in figure 30);

passing the signal prior filtering through an RC circuit (the signal prior to the resistor 510 is pass to the second low pass filter 943b as shown in figure 30, the low pass filter circuit 943b comprises resistor and capacitor); and

using the output of the RC circuit as the reference voltage for the comparator (the output from the second low pass filter 943b is pass to the second level slicer portion 929 and to the light reference value setting portion 588 and adjust the signal with a resistive divider to an appropriate level and enters the second slice level 916 into the comparator 587Cas shown in figure 30, paragraph 0216, lines 19-25).

(2) Regarding claim 2:

Oshima et al. discloses wherein the filter is a low pass filter (low pass filter 943a as shown in figure 30).

***Allowable Subject Matter***

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5. Claims 5-9, 11, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oshima et al. (US 2001/0021144 A1) discloses an optical disk, method for recording and reproducing write once information on and from optical disk, optical disk reproducing device, optical disk recording and reproducing write-once information on optical disk, and optical disk recording device. Lourens et al. (US 2005/0141648 A1) discloses time signal peripheral. Lee et al. (US 2002/0106038 A1) discloses a data slicer and RF receiver employing the same. Kim et al. (US 2002/0006097 A1) discloses an apparatus and method for correcting asymmetry optical disk reproducing system. Clark et al. (US 5,671,256) discloses a method for decoding a digital signal. De Ruijter et al. (US 2005/0036568 A1) discloses a fast settling data slicer comprising a low-pass filter with switchable cut-off frequency and a notch-filter.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Siu M. Lee whose telephone number is (571) 270-1083. The examiner can normally be reached on Mon-Fri, 7:30-4:00 with every other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Siu M. Lee  
3/15/2007

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER